

Amendments to the Claims

1. (Currently Amended) An aircraft air conditioning system for conditioning of the cabin and/or cockpit air in an aircraft, comprising an air re-circulation circuit (13, 14, 15, 16) and a UVC radiation unit (12) positioned so as to irradiate air in the re-circulation circuit (13, 14, 15, 16) with ultra violet light.
2. (Currently Amended) An air conditioning system as claimed in claim 1 comprising a at least one re-circulation (14) fan having ~~the~~ an inlet thereof connected to a mechanical filter (33), and ~~the~~ an output connected to a mixer unit (13) adapted to mix re-circulated air supplied to the mixer unit (13) by the fan (14), the UVC radiation unit (12) being positioned so as to irradiate the re-circulated air with ultra violet light at a wavelength of 253.7 nm.
3. (Currently Amended) An air conditioning system as claimed in claim 2 in which the irradiation unit (12) is located in a plenum chamber (40) which feeds the re-circulated air to the mechanical filter filters (33).
4. (Currently Amended) An air conditioning system as claimed in claim 3 in which the plenum chamber (40) is a chamber which receives re-circulated air from various multiple air outlets from the cabin and/or the cockpit of the aircraft.
5. (Currently Amended) An air conditioning system as claimed in claim 4 in which the air re-circulation fan (14), mechanical filters (33) filter and mixer unit (13) are located in the fuselage of the aircraft below the passenger cabin and substantially in line with the roots of the aircraft wings.
6. (Currently Amended) An air conditioning system as claimed in claim 4 or claim 5 in which the UVC radiation unit comprises a plurality of the UVC emitters (41) are located in a the plenum chamber (40) to which the mechanical filters (33) filter are is exposed for ingesting re-circulated air from the plenum chamber (40).

7. (Currently Amended) An aircraft fitted with an air conditioning system as claimed in ~~any one of the preceding claims~~ claim 1.

8. (Currently Amended) A kit of parts for providing an aircraft with an air conditioning system as claimed in ~~any one of claims 1 to 6~~ claim 1.

9. (New) An air conditioning system as claimed in claim 2 in which the at least one re-circulation fan comprises at least first and second re-circulation fans, each fan having an inlet fluidly connected to a respective mechanical filter and an outlet fluidly connected to the mixer unit.

10. (New) An air conditioning system as claimed in claim 5 in which the UVC radiation unit comprises a plurality of UVC emitters located in the plenum chamber to which the mechanical filter is exposed for ingesting re-circulated air from the plenum chamber.

11. (New) An air conditioning system for conditioning cabin and/or cockpit air in an aircraft, comprising:

means for re-circulating air in the aircraft; and
means for irradiating re-circulated air with ultra-violet light.

12. (New) An air conditioning system as claimed in claim 11 further comprising means for mixing irradiated re-circulated air with fresh air.

13. (New) An air conditioning system as claimed in claim 12 further comprising means for distributing irradiated re-circulated air mixed with fresh air to the cabin and/or the cockpit.

14. (New) An air conditioning system as claimed in claim 11 in which the means for irradiating re-circulated air with ultra-violet light comprises a plurality of UVC emitters located

in a plenum that is configured to receive re-circulated air to be irradiated from the cabin and/or cockpit.

15. (New) An air conditioning system as claimed in claim 14 in which the plenum is located in the aircraft fuselage below the passenger cabin and substantially in line with the roots of the aircraft wings.

16. (New) An aircraft fitted with an air conditioning system as claimed in claim 11.

17. (New) A method for conditioning air in an aircraft, the method comprising:
irradiating re-circulated air with ultra-violet light;
mixing irradiated re-circulated air with fresh air; and
distributing the irradiated re-circulated air mixed with fresh air to the cabin and/or the cockpit of the aircraft.

18. (New) The method as claimed in claim 17 in which the re-circulated air is irradiated with ultra-violet light at a wavelength of about 253.7 nm.

19. (New) The method as claimed in claim 17 further comprising filtering irradiated re-circulated air prior to mixing the irradiated re-circulated air with fresh air.

20. (New) The method as claimed in claim 17 wherein substantially all of the re-circulated air in the aircraft is irradiated with ultra-violet light.